

## *Plebicula golgus* Hübner and other Butterflies in the Sierra Nevada, July, 1975

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Many spring visitors to Granada must have seen the grand range of snow-capped mountains of the Sierra Nevada lying to the south, but very few can have delved into their magnificent fauna and flora or more especially their wealth of lepidoptera which have been sampled periodically by a good many specialists from European and other countries. Encouraged by reports of the experiences there of Major General Sir George Johnson in 1974 and Mr. Denzil Fennell in 1973 I decided to try my own luck in these delectable regions in 1975. I set out on 7th July and flew direct to Malaga arriving in the early afternoon, and decided to make straight for my destination in the small Simca I picked up at the airport. After negotiating the maze of streets in that huge city, I eventually found myself on the old mountain road to Granada which I did not reach till 8 p.m. after covering some 85 miles by this tortuous route. It was nearly dark when I started making the steep ascent up the fine Sierra road which reaches 11,000 ft. at the summit and is now the highest metalled route in Europe. Half way up I finally put up at the very comfortable Hotel Nogal (walnut) where I found the owner had spent several years in England. The chief visitors round the hotel lights were quite a spate of Cream-spot Tigers. The morning of the 8th broke fine and warm and this was to be the daily feature of the whole of my fortnight's stay. On the rough bank opposite the hotel were flying a bright form of *Plebeius argus* L., also *Pyronia bathseba* Fab. I left this delightful spot situated at just over 5,000 ft. during the morning and made my way to the higher levels. It was quite a revelation to see the change in the floral zones. Leaving the lavender-covered slopes I soon came on a big area at between 6,000-7,000 ft. enveloped in almost a matt of a flat creeping and very prickly astragalus, somewhat similar to that on which *Colias aurorina heldreichi* Staud. feeds on in the Peloponnese. At almost 7,000 ft. the scene changed to a region of a large broom in full flower. It was at this point I saw someone also with a net and it turned out to be Mr. Huisenga and his wife from Holland on the same quest as myself.

The chief quarry was a few species of butterflies endemic to this high altitude, mainly the small blue *Plebicula golgus* Hübn. and the satyrid *Pseudochazara hippolyte* Esp. I descended the sloping road to about 7,000 ft. to the new ski resort which was to be my headquarters for the rest of my sojourn. I put up at the well-appointed Hotel Sol-y-Nieve with its large swimming pool which was most refreshing each evening after a day with the net in the blazing sun. Later that day I explored the higher regions which became quite alpine at just over 8,000 ft. This was the altitude of the large Parador Hotel. Above this point the true screes begin which were to prove so productive

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later on, but on this occasion a high wind was blowing and virtually no insects were on the move. However, I came across another collector, Dr. Calle of Madrid with his wife. The only other species seen this day were *Colias croceus* Fourc. and a very bright form of *Pyrgus fritillarius* Poda.

One great drawback at the ski centre, in spite of its massive buildings of hotels and apartment blocks, was the absence of any form of filling up station for petrol. The only means of getting replenished was to make the 20-mile tortuous descent to Granada which I did on 9th July to find the thermometer there standing at nearly 90°F. quite early in the day. However, on the way up I stopped at about 5,000 ft. where there is a deep valley with a very luscious vegetation just below the effigy in wood of a large bull which we dubbed "Torero bravo". This was in some ways the most prolific area for lepidoptera in this part of the Sierra Nevada. *Melanargia lachesis* Hübn. was in many ways the most plentiful of the lower level species, and *Aporia crataegi* L. was also well to the fore. This locality was to be my venue for the next three days under very warm conditions. On the 10th after lunching at the very nice restaurant Viboras just above the main collecting area, a slope adjoining it produced quite a big colony of *Melicta parthenoides* Kef. with both sexes in great plenty in a very restricted marshy piece of ground, as I never found this insect elsewhere during my trip. A small Lycaenid caught in this spot proved to be *Aricia montensis* Verity. A further visit on the 12th saw the first *Gonepteryx cleopatra* L. and *Coenonympha dorus* Esp. with a lot of *P. bathseba* and *P. argus* flying among the lavender and a tall sage. The intervening day, 11th July, I spent exploring the higher ground and motoring up towards the summit of Pico Veleta at just over 11,000 ft. This extension of the road is fairly recent and did not exist when Dr. Lionel Higgins was in this region in 1947 and Col. W. Manley in 1959. Both of them found *P. golgus* in good numbers at about 8,500 ft. where there is a small plateau sheltered by a large cliff with a big snow strip still extant. It was in this area that I first saw this little Lycaenid on the 13th when the wind had given way to a very warm day at this altitude; but the single male seen on the way back to the hotel that evening eluded me when, as usual, I stopped at some damp ground by the fairly steep road of descent. Here I was surprised to see a fine *Iphiclides feisthameli* Dup. Another day at the 5,000 ft. level on the 14th produced, again surprisingly, *Libythea celtis* L., a very late *Melanargia ines* and *Hipparchia alcyone* D. & S. 15th July indeed proved quite a field day when the high ground was revisited and especially the sloping screes which at first sight looked quite barren but for small tufts of grass and matts of ground juniper. The slopes were in fact studded with the most exquisite small alpine plants including violas and tiny leguminosae, mainly trefoils and clovers. It was not long before I saw several male *P. golgus* on the flat area, but when I descended the screes, it was evident that they were much more plentiful on the rough slopes. Most of the males

were quite fresh, while the females were just appearing. This most attractive little Blue was at one time thought to be only a mountain form of *P. dorylas* D. & S., but even Hübner in 1813 gave it specific rank. Its general morphology and isolation at this altitude together with its ecology have confirmed this view. Another interesting little Lycaenid flying on these screes was *Aricia morronensis* Ribbe. It never appeared much more than a few inches from the ground and was very difficult both to see or catch. They were in big numbers and seemed to be confined to the steep slopes and were never to be seen on the flat areas. That afternoon I espied another net and its bearer proved to be Monsieur Desmarests from Nantes. We collected together with his family and besides the two Lycaenids mentioned he took the very seldom seen *Agriades glandon zulichii* Hemming regarded by Col. Manley as a good species. We also saw the first *Erebia hispania* Butler. Its general appearance and especially its underside is so different from its relative race *rondoni* Oberthur in the Eastern Pyrenees that this insect too may well be a separate species. The next three days were devoted to the high ground in glorious conditions. On the 16th both *P. golgus* and *A. morronensis* were becoming quite abundant and I watched a good many females of the former as they settled on various small plants on the steep screes to see if I could observe any laying, but I could not find any ova. On the 17th, I was surprised to take a single male *Plebicula escheri* Hübner flying among the *P. golgus*. Earlier that day I had visited a rough area at the junction of the high road to the Parador and the descent to the ski resort by the straight route. At this spot some pylons cross the rugged ground. Several *Melitaea didyma* Esp. in a small form were flying together with *E. hispania*. On 18th July I had an early rendezvous with M. Desmarests by the Parador which seemed to be the lowest level at 8,000 ft. for *P. golgus*, which proved to be even more plentiful than on the previous days and on one scree slope the males were getting up at almost every step. He told me that a few days before he had seen quite a lot of butterflies in the Sierra de Alfacar some 20 miles east of Granada. This region I visited on 19th July. Many *Hipparchia semele* L. were flying by the main road to Almeria at Porto de Moro with a few *Lysandra albicans* H.-S. There were some fine fresh *Brintesia circe* D. & S., while the smaller species included many *P. argus* with some worn *Strymonidia spini* D. & S. which I also took later that day at 5,000 ft. on the road up the Sierra Nevada. The only Skipper seen was *Thymelicus acteon* Rott. On the high screes on the 20th, I met Señor Jimenez who had come up from Granada where he lived and was the leading expert on the lepidoptera of the region. He was most interesting about his experiences and was on his way to find *Parnassius apollo nevadensis* Oberthur on the high Sierra to the west, a little-known locality for this local race. He pointed out to me a spot in the deep valley below where a few days before he had taken several *Pseudochazara hippolyte williamsi* Romei for which I had been searching in vain. On the way

home near the Parador I came across the first *Issoria lathonia* L. and *Argynnis aglaia* L. My last collecting day on the 23rd I met Dr. Gross of Cologne on the *P. golgus* ground. I happened to mention *P. hippolyte* and he pointed to a spot in the distance at about the 7,000 ft. level which I knew. He said a few days earlier he had found this Satyrid reasonably common along the ridge which runs from the Agricultural Hostel at the junction of the road to the ski resort right along to the Parador just above the broom-covered slopes. So I sped off to this area that afternoon. As I arrived a strong breeze started, but it was not long before I saw a *P. hippolyte* on the rocky slope behind the hostel. During the next few hours I saw several more of this agile species always pitched among the rocks and in spite of many efforts none found their way into my net. I was glad to have seen this very localised insect *in situ*, as it apparently does not occur between the Sierra Nevada and the Urals, that is to say if the inhabitant of these far-off mountains is in fact the same species. *Erebia hispania* was becoming quite numerous in this rocky region near the pylons.

Early on the morning of 23rd July I set out down the mountain road to Granada and at the boundary of the province joined the fine new motorway into Malaga which cuts through the lower mountain range by a series of tunnels. I reached the noon after what had proved a most enjoyable and on the whole airport by midday and was back in England by the late after-successful visit to this most attractive part of Spain.

Though I only recorded just 40 species of butterflies since the number in this region is not excessive, I have thought it worth enumerating them with some notes. All references are to the Sierra Nevada unless otherwise stated.

*Iphiclidides feithsameli* Dup., a single specimen seen at 7,500 ft. *Pieri brassicae* L., a few seen near Malaga. *Pieri rapae* L., some seen in mountains near Malaga. *Pontia daplidice* L., occasional near Granada and at about 5,000 ft. *Aporia crataegi* L., numerous at 5,000 ft. level on 9th July. *Euchloë ausonia* Hübn., few noted from 7,000-8,500 ft., mainly near the Parador. *Colias crocea* Fourc., quite numerous at all levels, including a few *f. helice*. *Gonepteryx cleopatra* L., seen at about 5,000 ft. and in Sierra de Alfacar. *Pyrameis cardui* L., two recorded at about 8,000 ft. *Aglaïs urticae* L., several seen at from 7,500-8,500 ft. *Argynnis aglaia* L., several noted at about 8,000 ft. *Issoria lathonia* L., also observed near the ski resort at 7,000 ft. *Melitaea didyma* Esp., a few small specimens seen at about 7,500 ft. *Melictha parthenoides* Kef., a small colony quite isolated at 5,500 ft. *Libythea celtis* Laicharting, a single specimen at 5,000 ft. on 14th July. *Melanargia lachesis* Hübn., very numerous from lower levels to about 6,000 ft. *Melanargia ines* Hoffmans-egg, one female taken on 14th July at 5,000 ft. *Hipparchia alcyone* D. & S., seen in the Sierra de Alfacar and at 5,000 ft. *Hipparchia semele* L., noted near Malaga, in the Sierra de Alfacar and at 5,000 ft. *Pseudochazara hippolyte williamsi* Romei, only seen on 22nd July at about 7,500 ft. *Brintesia circe*



Fab., observed in the Sierra de Alfacar and at 5,000 ft. *Erebia hispania hispania* Butler, first appeared on 15th July and occurred from 7,500-9,000 ft. on the steep Sierra. *Maniola jurtina* L., numerous up to 6,000 ft. *Pyronia bathseba* Fab., common at about 5,000 ft. and in Sierra de Alfacar. *Coenonympha dorus* Esp., numerous in the 5,000 ft. level region. *Lasiommata megera* L., taken at about 6,000 ft. *Strymonidia spini* D. & S., a few in Sierra de Alfacar and at 5,000 ft. level. *Plebeius argus hypochionus* Rambur, plentiful at all levels up to 7,500 ft. *Aricia montensis* Verity, seen at 5,000 ft. and also at 7,500 ft. *Aricia morronensis* Ribbe, abundant on steep scree slopes at about 8,500 ft. *Plebicula escheri* Hübn. f. *agengoi* Higgins, one male taken at about 8,500 ft. on scree. *Plebicula golgus* Hübn., first seen on 13th July at about 8,500 ft., both sexes plentiful by 18th July with several pairs observed from 8,000-8,500 ft. *Lysandra albicans* H.-S., only seen in Sierra de Alfacar. *Agriades glandon zullichi* Hemming, two males taken by M. Desmarests on scree at 8,500 ft. level. *Polyommatus icarus* Rott., noted from 5,000 ft. to 8,500 ft. *Pyrgus fritillarius nevadensis* Oberthur., several of the large bright form at about 7,500 ft. *Pyrgus serratulae* Rambur, only two seen at about 7,000 ft. *Carcharodus baeticus* Rambur, seen at 7,500 ft. level. *Thymelicus acteon* Rott., only noted in the Sierra de Alfacar. *Thymelicus sylvestris* Poda., a few at about 5,000 ft.

Few moths were observed. Besides *Arctia villica* already mentioned several *Macroglossa stellaturm* L. were seen, and on the high scree the very striking large pyrale *Loxostege clathralis* Hübn. with its silver latticed wings, together with *Pyrausta limbopunctalis* H.-S.

### References

- Fernandez-Rubio, F. and Gomez Bustillo, M. R. 1972. Les Rhopalocères et Zygènes de la Sierra Nevada, *Alexanor* VII, part 8, pp. 339-345.
- Fernandez-Rubio, F. and Gomez Bustillo, M. R. 1974. *Mariposas de la Peninsula Iberica*, 2 vols.
- Haig-Thomas, P. 1929. Two trips to Central and Southern Spain. *Entomologist's Rec. J. Var.*, 41: 27-31, 41-47.
- Higgins, L. G. 1948. Butterflies in Granada. *Entomologist*, 81: 25-29, 49-53.
- Higgins, L. G. and Riley, N. D. 1974. *A Field Guide to the Butterflies of Britain and Europe* (2nd edition).
- Hübner, J. 1808-1813. Sammlung europäischer Schmetterlinge, 1, pl. 136, figs. 688 and 689.
- Manley, W. B. L. and Allcard, H. G. 1970. *A Field Guide to the Butterflies and Burnets of Spain*.
- Ribbe, C. 1909-1812. Beiträge zu einer Lepidopteren-Fauna von Amdalusien (Sud-Spanien) Macrolepidopteren. *Dt. ent. Z. Iris*, 23: 1-395 (2 plates).
- Seitz, A. 1906. *Macrolepidoptera of the World*, vol. 1 Palaearctic.
- Seitz, A. 1932 *Ibidem*. Supplement to vol. 1.